

**IN THE UNITED STATES DISTRICT COURT  
FOR THE WESTERN DISTRICT OF TEXAS  
WACO DIVISION**

WSOU INVESTMENTS, LLC, d/b/a  
BRAZOS LICENSING AND  
DEVELOPMENT,

Plaintiff,

v.

TP-LINK TECHNOLOGY CO., LTD.,

Defendant.

Civil Action No. 6:20-cv-1012-ADA

Civil Action No. 6:20-cv-1017-ADA

Civil Action No. 6:20-cv-1022-ADA

**JURY TRIAL DEMANDED**

**TP-LINK CHINA’S REPLY CLAIM CONSTRUCTION BRIEF<sup>1</sup>**

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<sup>1</sup> Defendant’s participation in this litigation is not a waiver of its personal jurisdictional challenge and special appearance to contest jurisdiction. Defendant reserves the right to appeal the Court’s Order denying TP-Link’s motion. *See In re: OnePlus Technology (Shenzhen) Co.*, No. 21 Civ. 165, 2021 WL 4130643, \*4, n.2 (Fed. Cir. Sept. 10, 2021) (non-precedential) (per curiam) (noting “order denying mandamus does not foreclose OnePlus from raising its arguments on appeal from a final judgment against it”).

**TABLE OF CONTENTS**

	<b><u>Page</u></b>
I. U.S. PATENT NO. 7,174,180 (CASE NO. 6:20-CV-01012) .....	1
A. “a processor for assigning scheduling priorities to each mobile unit” (claims 1, 11, and 13).....	1
B. “a priority computation module” (claims 14, 15, and 17) .....	2
1. If the Court finds that the specification discloses an algorithm, then the structure should be limited to equations (1), (7), and (8). .....	4
II. U.S. PATENT NO. 7,652,988 (CASE NO. 6:20-CV-01022) CLAIM TERMS .....	5
A. “rate control engine configured to ...” (claims 1, 12, and 24).....	5
B. “characterizing/characterize <i>the flow</i> of packet traffic” (claims 1, 12); “ <i>said</i> traffic flow” (claim 24) .....	7
C. “rate control adaption engine [is] configured to” (claim 24).....	8
D. “said traffic characterization engine” (claim 24) .....	10
III. U.S. PATENT NO. 7,965,726 (CASE NO. 6:20-CV-01017) CLAIM TERMS .....	11
A. “determined priority includes minimum-performance guarantees” (Claims 1, 5, 10, 14, and 18).....	11
B. “a processor” (Claim 1) / “at least one processor and at least one memory storing computer program code” (Claim 5).....	12
C. “means for determining a priority for at least one data packet, wherein the priority means determines the priority of the data packet based at least on a plurality of quality of service factors, wherein each of the plurality of quality of service factors has a corresponding weighting factor and the determined priority includes minimum-performance guarantees” (claim 18).....	15

**TABLE OF AUTHORITIES**

	<b><u>Page(s)</u></b>
<b>Cases</b>	
<i>Advanced Mkts. Sys., LLC v. CVS Pharmacy, Inc.</i> , No. 6:15-cv-134-JRG-KNM, 2016 WL 1741396 (E.D. Tex. May 3, 2016) .....	6
<i>Allen Eng'g Corp. v. Bartell Indus., Inc.</i> , 299 F.3d 1336 (Fed. Cir. 2002).....	10
<i>Arendi S.A.R.L. v. LG Elecs., Inc.</i> , No. 12-cv-1595-LPS, 2019 WL 3891150 (D. Del. Aug. 19, 2019).....	14
<i>Catalina Mktg. Int'l, Inc. v. Coolsavings.com, Inc.</i> , 289 F.3d 801 (Fed. Cir. 2002).....	14
<i>Classen Immunotherapies, Inc. v. Biogen IDEC</i> , 659 F.3d 1057 (Fed. Cir. 2011).....	13
<i>Cypress Lake Software, Inc. v. Samsung Elecs. Am., Inc.</i> , 382 F. Supp. 3d 586 (E.D. Tex. 2019).....	14
<i>Dyfan, LLC v. Target Corp.</i> , No. 6:19-cv-179-ADA, 2020 WL 8617821 (W.D. Tex. Nov. 24, 2020) (Albright, J.).....	12, 14
<i>Genband USA LLC v. Metaswitch Networks Ltd.</i> , No. 2:14-CV-33-JRG-RSP, 2015 WL 4722185 (E.D. Tex. Aug. 7, 2015) .....	3, 5
<i>Noah Sys. Inc. v. Intuit Inc.</i> , 675 F.3d 1302 (Fed. Cir. 2012).....	13
<i>Robert Bosch, LLC v. Snap-On, Inc.</i> , 769 F.3d 1094 (Fed. Cir. 2014).....	6
<i>Rockwell Automation, Inc. v. 3-S Smart Software Sols., GmbH</i> , No. 2:15-cv-1543-JRG-RSP, 2016 WL 5811485 (E.D. Tex., Oct. 5, 2016) .....	3, 5
<i>Saint Lawrence Commc'ns LLC v. ZTE Corp.</i> , No. 2:15-cv-349, 2016 WL 6275390 (E.D. Tex. Oct. 25, 2016).....	6
<i>St. Isidore Research, LLC v. Comerica Inc.</i> , No. 2:15-cv-1390-JRG-RSP, 2016 WL 4988246 (E.D. Tex. Sept. 19, 2016).....	4, 12
<i>Stragent, LLC v. Amazon.com, Inc.</i> , No. 6:10-cv-225-LED, 2011 WL 13152568 (E.D. Tex. June 27, 2011) .....	5

**TABLE OF AUTHORITIES (cont'd)**

	<b><u>Page(s)</u></b>
<i>Uniloc USA, Inc. v. Samsung Elecs. Am., Inc.</i> , 809 F. App'x 863 (Fed. Cir. 2020) .....	1, 9
<i>Williamson v. Citrix Online, LLC</i> , 792 F.3d 1339 (Fed. Cir. 2015).....	<i>passim</i>
<i>WSOU Investments LLC v. Google LLC</i> , No. 6:20-cv-00573-ADA, Dkt. 44 (W.D. Tex. June 2, 2021) (Albright, J.) .....	14
 <b>Statutes</b>	
35 U.S.C. § 112, ¶ 6 .....	<i>passim</i>

**I. U.S. PATENT NO. 7,174,180 (CASE NO. 6:20-CV-01012)****A. “a processor for assigning scheduling priorities to each mobile unit” (claims 1, 11, and 13)**

WSOU	Defendant
No construction necessary	<p>35 U.S.C. § 112, ¶ 6 applies</p> <p><b><u>Functions:</u></b></p> <ul style="list-style-type: none"> <li>• computing a data stream urgency value for each data stream serving each mobile unit, wherein the data stream urgency value for a data stream is computed based on the sensitivity to delay of the data stream and the delay currently experienced by the data stream</li> <li>• assigning a unit urgency value to the mobile unit, the unit urgency value being the highest data stream urgency value for the data streams serving the mobile unit</li> <li>• calculating the scheduling priority for the mobile unit based on the unit urgency value for the mobile unit</li> <li>• assigning scheduling priorities to each mobile unit</li> </ul> <p><b><u>Structure:</u></b> Insufficient structure (no algorithm); indefinite</p>

WSOU does not identify any functions for this term, nor does it challenge the functions identified by Defendant. Therefore, WSOU’s arguments fail as it does not identify the corresponding structure for these functions. *See Williamson v. Citrix Online, LLC*, 792 F.3d 1339, 1351–52 (Fed. Cir. 2015) (“[T]he patentee must disclose adequate corresponding structure to perform all the claimed functions.”).

WSOU argues that “Claim 1 itself contains an algorithm for the processor scheduling priorities.” (WSOU Resp. at 2). But the portion of claim 1 WSOU points to recites only the functions performed by the “processor”—it does not provide an algorithm for those functions. WSOU appears to understand this and moves on quickly without providing any analysis.

WSOU next refers to Fig. 3 and the accompanying disclosures in the specification. (*See* WSOU Resp. at 2–4). But WSOU’s argument fails because Fig. 3 recites the same broad functions recited in the claims (*e.g.*, “compute urgency value for each data stream” (306), and “compute priority value for each unit” (312)) without disclosing an algorithm for how those

functions are performed. This is insufficient. *See Uniloc USA, Inc. v. Samsung Elecs. Am., Inc.*, 809 F. App'x 863, 865–66 (Fed. Cir. 2020) (“the specification merely restates the claimed function” and “[m]erely describing the results of an unspecified algorithm in this manner . . . is not sufficient to satisfy the requirements of § 112 ¶ 6,” renders the claims indefinite), *aff'g* No. 2:18-cv-0042-JRG-RSP, 2019 WL 11023944, at \*11–13 (E.D. Tex. Apr. 18, 2019).

Fig. 3 states, “*compute* urgency value for each data stream” (306), “*select highest urgency value* of the stream serving a unit as urgency value for the unit” (308), and “*compute* priority value for each unit” (312). This simply mimics the functional claim language already recited in claim 1: “wherein a data stream urgency value is *computed* for each data stream serving each mobile unit,” “wherein a unit urgency value is *assigned* to the mobile unit, the unit urgency value being the *highest data stream urgency value* for the data streams serving the mobile unit,” and “wherein the *scheduling priority for the mobile unit is based* on the unit urgency value for the mobile unit.”

**B. “a priority computation module” (claims 14, 15, and 17)**

WSOU	Defendant
No construction necessary	<p>35 U.S.C. § 112, ¶ 6 applies</p> <p><b><u>Functions:</u></b></p> <ul style="list-style-type: none"> <li>• computing a data stream urgency value for each data stream serving each mobile unit, wherein the data stream urgency value for a data stream is computed based on the sensitivity to delay of the data stream and the delay currently experienced by the data stream</li> <li>• assigning a unit urgency value to the mobile unit, the unit urgency value being the highest data stream urgency value for the data streams serving the mobile unit</li> <li>• calculating the scheduling priority for the mobile unit based on the unit urgency value for the mobile unit</li> <li>• examining the status information and the unit parameters for each mobile unit</li> <li>• assigning scheduling priorities to each mobile unit</li> </ul> <p><b><u>Structure:</u></b> Insufficient structure (no algorithm); indefinite</p>

WSOU’s argument that the term “a priority computation module” conveys sufficient structure to avoid means-plus-function treatment fails.

WSOU first argues, relying on pre-*Williamson* case law, that “[w]hile the term ‘module’ as a stand-alone does not provide any indication of structure, the ‘priority computation’ aspect of the term most certainly does.” (WSOU Resp. at 5). Not so. The mere presence of a “modifier” or a “prefix” such as “priority computation” does not add sufficient structure to “module.” *See, e.g., Williamson v. Citrix Online, LLC*, 792 F.3d 1339, 1351–1354 (Fed. Cir. 2015) (“While [it] is correct that the presence of modifiers can change the meaning of ‘module,’ the presence of these particular terms does not provide any structural significance to the term ‘module’ in this case” and finding “distributed learning control module” indefinite under § 112, ¶ 6); *Rockwell Automation, Inc. v. 3-S Smart Software Sols., GmbH*, No. 2:15-cv-1543-JRG-RSP, 2016 WL 5811485, at \*38 (E.D. Tex., Oct. 5, 2016) (finding “comparison module” to be a means-plus-function term); *Genband USA LLC v. Metaswitch Networks Ltd.*, No. 2:14-CV-33-JRG-RSP, 2015 WL 4722185, at \*13 (E.D. Tex. Aug. 7, 2015) (finding “packetization module” to be a means-plus-function term). Here, “priority computation” does not have a well-established meaning, and thus a POSITA would not understand it to impart structural meaning to the claimed “priority computation module.”

WSOU then argues that “[c]laim 14 discloses the algorithm performed by the priority computation module.” (WSOU Resp. at 6). It does not. Claim 14 simply recites the various functions that the “priority computation module” performs (*e.g.*, examining the status information and the unit parameters for each mobile unit)—these are broad functions and do not provide a structure for this term. Therefore, the term is subject to means-plus-function treatment.

Claim 14 is distinguishable from the claim at issue in *St. Isidore Rsch., LLC v. Comerica Inc.* in which “[t]he claim explain[ed] that the ‘transaction processing module’ performs the ‘transaction processing’ function” by listing detailed steps for the function. No. 2:15-cv-1390-JRG-RSP, 2016 WL 4988246, at \*13 (E.D. Tex. Sept. 19, 2016) (“The ‘module’ (1) communicates by receiving transaction information, (2) identifies a specific party to the transaction, (3) transmits a request for verification to that party, (3) recognizes the result of that request, (4) determines the authenticity of the request using that result, and (5) appropriately continues with the transaction.”). The court found that “[t]his step-wise description of the operation of the ‘module’ forms an algorithm.” *Id.* In contrast, here, Claim 14 does not provide a step-wise description of the operation of the “priority computation module.” Instead, it lists the broad functions performed by this module.

WSOU then argues that “the specification expressly calls out the associated algorithms for the priority computation module.” (WSOU Resp. at 7). WSOU points to equations (1), (7), (8) which purportedly perform priority computation. Even if these formulae address some of the priority computation module’s functions, they do not address them all. For example, WSOU does not point to any formula for “examining the status information and the unit parameters for each mobile unit.” *See Williamson*, 792 F. 3d, 1351–52. (“[T]he patentee must disclose adequate corresponding structure to perform *all* the claimed functions.”). The term is thus indefinite.

**1. If the Court finds that the specification discloses an algorithm, then the structure should be limited to equations (1), (7), and (8).**

WSOU points to only equations (1), (7), (8) and accompanying disclosures as the alleged algorithm for “a priority computation module.” If the Court finds that these equations provide the required algorithm, then the corresponding structure for “a priority computation module” should be limited to these equations.



## II. U.S. PATENT NO. 7,652,988 (CASE NO. 6:20-CV-01022) CLAIM TERMS

### A. “rate control engine configured to ...” (claims 1, 12, and 24)

WSOU	Defendant
No construction necessary	<p>35 U.S.C. § 112, ¶ 6 applies</p> <p><b>Functions:</b></p> <ul style="list-style-type: none"> <li>allowing credits to accumulate in a credit bucket [at a refresh rate] over multiple time-slices up to a maximum credit limit</li> <li>allocating credits from said credit bucket to packet traffic that is associated with said credit bucket</li> <li>restricting the allocation of credits from said credit bucket in any single time-slice to a maximum drain rate</li> </ul> <p><b>Structure:</b> Rate control engine includes a credit bucket register 322, a time-slice register 324, a refresh rate register 326, a maximum credit limit register 328, and a maximum drain rate register 330 in Fig. 3</p>

WSOU argues in its Response brief, at page 9:

the claims recite a definite structure. The claims do not simply recite an ‘engine,’ but rather recite a specific type of engine—‘a hardware-based rate control engine.’ **In fact, the claim expressly requires a hardware-based rate control engine.**

(emphasis added).<sup>2</sup> This is disingenuous—the language, “hardware-based rate control engine,” is not found in independent claims 12 and 24. WSOU improperly relies on the title and abstract of the ’988 patent to argue that these claims expressly include the “hardware-based” language. (WSOU Resp. at 9). But this additional language, even if it were recited in these claims, does not help WSOU escape means-plus-function treatment.

<sup>2</sup> WSOU’s reliance on pre-*Williamson* case law—*Stragent, LLC v. Amazon.com, Inc.*, No. 6:10-cv-225-LED, 2011 WL 13152568 (E.D. Tex. June 27, 2011)—to support the proposition that the term “engine” conveys structure here is misplaced. In *Stragent*, applying pre-*Williamson* law, the district court construed “engine” as “software module.” 2011 WL 13152568 at \*3–4. But after *Williamson*, a module is subject to § 112, ¶ 6. *See, e.g., Williamson v. Citrix Online, LLC*, 792 F.3d 1339, 1351 (Fed. Cir. 2015); *Rockwell Automation, Inc. v. 3-S Smart Software Sols., GmbH*, No. 2:15-cv-1543-JRG-RSP, 2016 WL 5811485, at \*38 (E.D. Tex., Oct. 5, 2016) (“comparison module”); *Genband USA LLC v. Metaswitch Networks Ltd.*, No. 2:14-CV-33-JRG-RSP, 2015 WL 4722185, at \*13 (E.D. Tex. Aug. 7, 2015) (“packetization module”).

WSOU equates “hardware-based” with “device.” (WSOU Resp. at 9). It is well-established that “device” is a “nonce” word that does not connote sufficient structure, thus warranting 112, ¶ 6 treatment. *See Robert Bosch, LLC v. Snap-On, Inc.*, 769 F.3d 1094, 1099–1102 (Fed. Cir. 2014) (finding “program recognition device” and “program loading device” means-plus-function terms) (collecting cases); *see also Saint Lawrence Commc’ns LLC v. ZTE Corp.*, No. 2:15-cv-349, 2016 WL 6275390, at \*18 (E.D. Tex. Oct. 25, 2016); *Advanced Mkts. Sys., LLC v. CVS Pharmacy, Inc.*, No. 6:15-cv-134-JRG-KNM, 2016 WL 1741396, at \*18 (E.D. Tex. May 3, 2016). Here, the claims merely recite what functions the “engine” perform (e.g., allowing credits to accumulate, allocating credits, restricting) rather than what it is and how it performs those functions. (*See* Defendant Op. at 8–11).

WSOU then argues that if means-plus-function treatment applies, then the “specification contemplates implementation in ‘memory or registers.’” (WSOU Resp. at 10). The use of the disjunctive “or” is not supported. Where there are multiple claimed functions, it is clear that there must be sufficient structure mapped to perform ***all of the claimed functions***. *See Williamson*, 792 F.3d at 1351–52. A failure to disclose adequate structure for just one function renders the claim indefinite. *Id.* Here, the intrinsic evidence demonstrates that functions map to the registers. (Defendant Op. at 7–9). WSOU does not challenge that the disclosed registers map to the corresponding functions, but WSOU instead seeks to incorporate into its new proposal non-register “memory” as well, saying that the specification “contemplates” such a construction. WSOU provides no support that the alleged “local memory” maps to one let alone all of the recited functions, for example, how does non-register “memory” provide structure for the function of “allocating credits from said credit bucket to packet traffic that is associated with

said credit bucket.” Instead, the structure for this function is found in the registers of the rate control engine. (*See* Defendant Op. at 10).

**B. “characterizing/characterize *the flow* of packet traffic” (claims 1, 12); “*said traffic flow*” (claim 24)**

WSOU	Defendant
No construction necessary	No antecedent basis; indefinite

Plaintiff agrees that “the flow” lacks antecedent basis in the claims, but argues that its meaning is clear from the specification, putting forth an analysis that leads to the incorporation of one embodiment of the patent (Fig. 7) into the claim. Plaintiff, in its Response brief at pp. 10-13, devotes several pages explaining that, “A POSITA would understand that ‘the flow’ refers to *the flow of packet traffic*.” (WSOU Resp. at 12). This is circular. WSOU’s arguments, and its reliance on Fig. 7 (and accompanying text), make clear that the language of the claims is not clear through implication and is not reasonably ascertainable.

WSOU, citing to *In re Downing*, focuses on the notion that “the flow” refers to “the flow of packet traffic.” But the primary issue with the term is not whether “the flow” refers to “the flow of packet traffic.” Instead, the issue is that there is no reasonable certainty as to when “the flow” must be “characterized” as recited in the claims. (Defendant Op. at 10–11).

WSOU’s citation to Fig. 7 supports that the claim is ambiguous and not definite. WSOU emphasizes, “Figure 7 shows that the time-slice is set (706) *prior to* the characterization of the flow of packet traffic (712) such that the time-slice value is fixed prior to the characterization of the flow of packet traffic.” (WSOU Resp. at 12) (emphasis in original). But WSOU disregards contradictory evidence, for example, that the characterization of the flow is not addressed consistently in the ’988 patent specification:

In the embodiment of FIG. 6, the flow characterization is done on a class-by-class basis. That is, the flow characterization for each individual class of traffic is done separately. For example, separate flow characterizations are done for a flow of TCP packets from source node A to destination node A and for a flow of TCP packets from source node B to destination node B. In accordance with an embodiment of the invention, the flow characterization distinguishes between traffic that is bursty and traffic that is “non-bursty” or smooth.

(’988 patent at 7:42–49). WSOU does not resolve the ambiguity and indefiniteness of “the flow.”

**C. “rate control adaption engine [is] configured to” (claim 24)**

WSOU	Defendant
No construction necessary	<p>35 U.S.C. § 112, ¶ 6 applies</p> <p><b>Functions:</b></p> <ul style="list-style-type: none"> <li>characterizing traffic, to select at least one of said refresh rate, said maximum credit limit, and said maximum drain rate in response to said traffic characterization</li> <li>adapting the maximum credit limit and the maximum drain rate as a set in response to said characterization of said traffic flow from said traffic characterization engine</li> </ul> <p><b>Structure:</b> Insufficient structure (no algorithm); indefinite</p>

“Rate control adaption engine” is subject to means-plus-function treatment for the same reasons as “rate control engine,” discussed above. And while “rate control engine” has disclosed structure that the claim is limited to, “rate control adaption engine” is indefinite for insufficient disclosure of structure for the recited functions. (*See* Defendant Op. at 13–15). The addition of the word “adaption” provides no structure and lends to the ambiguity of the term. To try to escape means-plus-function treatment, WSOU relies on its “device” argument addressed above with respect to “rate control engine.” (WSOU Resp. at 13). It fails here for the same reasons.

Turning to the issue of sufficient structure, the parties both point to Fig. 6. But WSOU fails to show sufficient corresponding structure to perform *all of the claimed functions*. *See Williamson*, 792 F.3d at 1351–52. If the applicant fails to disclose adequate corresponding

structure for all functions, the claim is indefinite. *Id.* Claim 24 requires, for example, “adapt[ing] the maximum credit limit and the maximum drain rate **as a set** in response to said characterization of said traffic flow from said traffic characterization engine.” WSOU make no mention of this functional requirement.

WSOU’s reliance on the claim as reciting an algorithm is unavailing. (WSOU Resp. at 14). Claim 24 merely recites function and not structure. The claim performs the functions of “characterizing traffic ...” and “adapting the maximum credit limit and the maximum drain rate as a set...” This is insufficient. WSOU’s reliance on the disclosure in the specification is also unhelpful. (WSOU Resp. at 15). WSOU merely repeats the functional language of the claims. *See Uniloc USA, Inc. v. Samsung Elecs. Am., Inc.*, 809 F. App’x 863, 865–66 (Fed. Cir. 2020) (finding that “the specification merely restates the claimed function” and “[m]erely describing the results of an unspecified algorithm in this manner ... is not sufficient to satisfy the requirements of § 112 ¶ 6,” renders the claims indefinite), *aff’d* No. 2:18-cv-0042-JRG-RSP, 2019 WL 11023944, at \*11–13 (E.D. Tex. Apr. 18, 2019).

WSOU also does not explain how any alleged structure in the specification supports the functions (*e.g.*, “adapt the maximum credit limit and the maximum drain rate **as a set**”). (WSOU Resp. at 15). *See Williamson*, 792 F.3d at 1318–19 (where there are multiple claimed functions, the patentee must disclose adequate corresponding structure to perform **all of the claimed functions**). Similarly, WSOU impermissibly describes the results instead of *how* these results are reached (*e.g.*, how to “obtain default rate control settings” or “set time-slice, refresh rate, maximum credit limit, and maximum drain rate values in rate control engine.”). (WSOU Resp. at 15).

**D. “said traffic characterization engine” (claim 24)**

WSOU	Defendant
Old proposal: no construction necessary New proposal: an engine to characterize a flow of traffic.	No antecedent basis; indefinite

WSOU concedes that there is no antecedent basis, arguing that “applicant made a drafting error.” (WSOU Resp. at 16). WSOU now proposes a new construction, backtracking from its “no construction necessary” position. WSOU’s proposed construction—that “said characterization engine” means “an engine to characterize a flow of traffic” (WSOU Resp. at 16)—has no support and should be rejected. The term is indefinite.

Claim 24 claims *three* different engines: (1) “a rate control engine,” (2) “a rate control adaption engine,” and (3) “*said* traffic characterization engine.” It is plainly ambiguous which of the first two engines the “said traffic characterization engine” is meant to refer back to, because neither of the first two engines are called “traffic characterization engines.”

WSOU’s solution to this ambiguity is to introduce a brand new engine. According to WSOU, “said traffic characterization engine” is not the previously recited “rate control engine,” “rate control adaption engine,” or even a “traffic characterization engine.” It is a new “engine to characterize a flow of traffic.” This rewrite is improper. The term must be taken as it is expressly written, and if in need of correction it is indefinite. *See Allen Eng’g Corp. v. Bartell Indus., Inc.*, 299 F.3d 1336, 1349 (Fed. Cir. 2002) (“Allen argues that one of skill in the art would understand that the term ‘perpendicular’ . . . should be read to mean ‘parallel.’ Allen stretches the law too far. It is not our function to rewrite claims to preserve their validity.”).

WSOU’s proposed rewrite is not even supported by the intrinsic evidence it relies on. WSOU relies on Fig. 6 of the ’988 patent and accompanying language for its construction. But

neither Fig. 6 nor the accompanying language refer to the recited “said traffic characterization engine” or WSOU’s proposed “engine to characterize a flow of traffic.”

### III. U.S. PATENT NO. 7,965,726 (CASE NO. 6:20-CV-01017) CLAIM TERMS

#### A. “determined priority includes minimum-performance guarantees” (Claims 1, 5, 10, 14, and 18)

WSOU	Defendant
No construction necessary	Indefinite

WSOU asserts without support that “[a] POSITA would readily understand the meaning of ‘determined priority includes minimum performance guarantees.’” (WSOU Resp. at 18).

WSOU then attempts to provide a meaning for this term by stating that, “[a] minimum performance guarantee is just that—a baseline of minimum performance.” *Id.* But other than swapping out “minimum” for “baseline,” this definition accomplishes nothing.

The problem, which WSOU does not adequately address, is that it is not clear what “performance” means. Performance could be measured in many ways and WSOU is wrong that its meaning is easily understandable to a POSITA. In particular WSOU argues that, “a POSITA would understand minimum-performance guarantees to have its plain and ordinary meaning—a constraint for realtime throughput requirements (e.g., a particular average bit rate).” (WSOU Resp. at 19). But as explained in Defendant’s Opening brief, the patent teaches away from the notion that “minimum-performance guarantees” is just the prior art guaranteed average bit rate. (Defendant Op. at 18–19). While it is true that a POSITA would know how to implement the minimum guaranteed bit-rate requirement, the ’726 patent expressly states that this prior art technique is one of “the most simple and traditional means,” and notes that “[t]he problem [in the prior art] is simply that there is no support for satisfying different QoS requirements over the air interface.” (*See* ’726 patent at 2:3–13). The patentees expressly stated that the claimed

“minimum-performance guarantees” is more than the conventional prior art guaranteed average bit rate, and WSOU should not be allowed to now contend that the two are the same.

WSOU also ignores that another issue with this term is that it is unclear how “minimum-performance guarantees,” to the extent the phrase has a reasonably certain meaning, are “included” in the “determined priority.” (*See* Defendant’s Op. at 19).

**B. “a processor” (Claim 1) / “at least one processor and at least one memory storing computer program code” (Claim 5)**

WSOU	Defendant
No construction necessary	<p>35 U.S.C. § 112, ¶ 6 applies</p> <p><b><u>Functions:</u></b></p> <ul style="list-style-type: none"> <li>• determining a priority for at least one data packet</li> <li>• determining a product by multiplying the priority by a traffic priority factor associated with different data traffic types</li> <li>• scheduling transmission of the at least one data packet based at least on the determined product</li> </ul> <p><b><u>Structure:</u></b> Insufficient structure (no algorithm); indefinite</p>

WSOU argues that “Claim 1 and Claim 5’s use of the term ‘a processor’ provides sufficient structure.” (WSOU Resp. at 20). It does not. The term “processor” is used as a nonce word in claims 1 and 5. As this Court and other districts have made clear, “processor” terms are governed by 35 U.S.C. § 112, ¶ 6 when “processor” is used as a nonce word and is defined in functional rather than structural terms. *See, e.g., Dyfan, LLC v. Target Corp.*, No. 6:19-cv-179-ADA, 2020 WL 8617821, at \*6 n.4 (W.D. Tex. Nov. 24, 2020) (Albright, J.); *St. Isidore Research, LLC v. Comerica Inc.*, No. 2:15-cv-1390-JRG-RSP, 2016 WL 4988246, at \*14 (E.D. Tex. Sept. 19, 2016) (construing term “processor configured to” as a means-plus function limitation because the processor “is defined only by the function that it performs”).

WSOU cites to *Smartflash LLC v. Apple Inc.* for the proposition that “a processor” in claim 1 and “at least one processor” in claim 5 are not subject to means-plus-function treatment.



(WSOU Resp. at 20). 77 F. Supp. 3d 535, 542 (E.D. Tex. Dec. 4, 2014). The *Smartflash* court, however, did not hold that “a processor” cannot be a mean-plus-function term. *Id.* The court simply distinguished its prior decision in another case in which it had found a term including “processor for” to be a means-plus-function term. *See id.* (citing *Pers. Audio, LLC v. Apple, Inc.*, No. 9:09-cv-111, 2011 WL 11757163 (E.D. Tex. Jan. 31, 2011)).

WSOU then relies on the notion that claim 5 is a so-called *Beauregard* claim, allegedly immune from § 112, ¶ 6. WSOU is wrong—*Beauregard* claiming does not automatically allow claims to escape means-plus-function treatment. This Court’s and other courts’ decisions find terms written in the same form as the term at issue to be subject to means-plus-function treatment. The term at issue is subject to means-plus-function treatment because its formulaic reference to “at least one processor,” “at least one memory,” and “computer program code” does not provide sufficient structure. WSOU does not dispute that processor, memory, and code are simply “black-box placeholders,” lacking specific structure for the claimed functions.

That claim 5 may be a *Beauregard* claim does not change this. *Beauregard* claiming merely refers to a claim drafting technique to “circumvent eligibility restrictions” (*i.e.*, Section 101 eligibility). *See Classen Immunotherapies, Inc. v. Biogen IDEC*, 659 F.3d 1057, 1074 (Fed. Cir. 2011). It does not create any structure for claim elements that lack structure.

WSOU warns against “exalting form over substance.” But form matters for the means-plus-function analysis. “Means-plus-function claiming involves a quid pro quo.” *Noah Sys. Inc. v. Intuit Inc.*, 675 F.3d 1302, 1318 (Fed. Cir. 2012). That is, “[i]n exchange for being able to draft a claim limitation in purely functional language, [t]he applicant must describe in the patent specification some structure which performs the specified function.” *Id.* The law “does not permit patentees to freely engage in functional claiming while circumventing [means-plus-

function treatment] simply by avoiding the word ‘means.’” *Egenera, Inc. v. Cisco Sys., Inc.*, 972 F.3d 1367, 1372–73 (Fed. Cir. 2020). As this Court has explained, applicants cannot “simply recite nonce words—‘processor’ and ‘code’—in order to essentially write the claim in a means-plus-function format without being subject to § 112, ¶ 6.” *Dyfan, LLC v. Target Corp.*, No. 6:19-cv-00179-ADA, 2020 WL 8617821, at \*6, n.4 (W.D. Tex. Nov. 25, 2020).

WSOU also argues that the term is not subject to means-plus-function treatment because “this term is in the preamble.” (WSOU Resp. at 21). But here the preamble is limiting. *See Catalina Mktg. Int’l, Inc. v. Coolsavings.com, Inc.*, 289 F.3d 801, 808 (Fed. Cir. 2002).

In *WSOU Investments LLC v. Google LLC*, No. 6:20-cv-00573-ADA, Dkt. 44 (W.D. Tex. June 2, 2021) (Albright, J.), this Court found a substantially similar term (“at least one memory and the computer program code are configured, with the at least one processor, to cause the apparatus to at least detect that an application is being started on the apparatus . . .”) subject to § 112, ¶ 6 and indefinite for lack of sufficient structure. Other courts have found the same. *See Arendi S.A.R.L. v. LG Elecs., Inc.*, No. 12-cv-1595-LPS, 2019 WL 3891150, at \*12 (D. Del. Aug. 19, 2019) (“computer readable medium including program instructions for performing the steps of . . . ,” located in preamble, subject to means-plus-function); *Cypress Lake Software, Inc. v. Samsung Elecs. Am., Inc.*, 382 F. Supp. 3d 586, 638 (E.D. Tex. 2019) (“A computer program product embodied on a non-transitory computer readable medium, comprising: . . .”, located in preamble, subject to means-plus-function).

WSOU argues that “Claim 1 itself describes an algorithm for the processor.” (WSOU Resp. at 22). But the portion of claim 1 to which WSOU points recites the various functions for the “processor”—it does not provide a structure for it. A POSITA thus would not understand the structure for this term based on the claim itself.

WSOU then points to the mathematical formula in the specification for determining the priority, but as explained in Defendant’s Opening brief at p. 23, the specification does not provide any algorithm for determining each of the terms in this formula, and thus it does not provide an algorithm sufficient to connote a structure. In addition, for the scheduling function, WSOU points to another formula, but it does not explain how this formula relates to the function of “scheduling transmission of the at least one data packet based at least on the determined product.” (See WSOU Resp. at 24). Instead, WSOU cites to a sentence in the specification that simply parrots the claimed function: “[a]t 330 the data packet is scheduled according to the determined priority.” (*Id.* citing ’726 patent at 6:28–29).

**C. “means for determining a priority for at least one data packet, wherein the priority means determines the priority of the data packet based at least on a plurality of quality of service factors, wherein each of the plurality of quality of service factors has a corresponding weighting factor and the determined priority includes minimum-performance guarantees” (claim 18)**

WSOU	Defendant
No construction necessary	35 U.S.C. § 112, ¶ 6 applies <u><b>Function:</b></u> <ul style="list-style-type: none"> <li>determining a priority for at least one data packet based on a plurality of quality of service factors, wherein each of the plurality of quality of service factors has a corresponding weighting factor and the determined priority includes minimum-performance guarantees</li> </ul> <u><b>Structure:</b></u> Insufficient structure (no algorithm); indefinite

The parties agree that this term is subject to means-plus-function treatment. As explained in Defendant’s Opening brief at pp. 24–25, this term is indefinite because neither the claim nor the specification provides sufficient structure. All WSOU has pointed to is the formula at ’726 patent, 5:18–38, and to the extent that is structure, the term should be limited to that structure.

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Respectfully submitted,

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**CERTIFICATE OF SERVICE**

The undersigned hereby certifies that the foregoing document was filed electronically in compliance with Local Rule CV-5(a) on October 8, 2021, and was served via CM/ECF on all counsel who are deemed to have consented to electronic service. Local Rule CV-5(b)(1).

/s/ John T. Johnson

John T. Johnson